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**United States Patent** [19][11] **Patent Number:** **5,116,365****Hillstead**[45] **Date of Patent:** **May 26, 1992****[54] STENT APPARATUS AND METHOD FOR MAKING**[75] **Inventor:** **Richard A. Hillstead**, Miami, Fla.[73] **Assignee:** **Cordis Corporation**, Miami Lakes, Fla.[21] **Appl. No.:** **660,127**[22] **Filed:** **Feb. 22, 1991**[51] **Int. Cl.:** ..... **A61F 2/06**[52] **U.S. Cl.:** ..... **623/1; 623/12**[58] **Field of Search** ..... **623/1, 11, 12; 604/96****[56] References Cited****U.S. PATENT DOCUMENTS**

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*Primary Examiner*—David Isabella*Assistant Examiner*—Debra S. Brittingham*Attorney, Agent, or Firm*—Watts, Hoffmann, Fisher & Heinke**[57] ABSTRACT**

A stent for reinforcing a vessel wall is disclosed. The stent is constructed from two elongated wires which are each bent into a series of tight bends. The two wires are permanently adhered at a first interconnection junction. The two wires are then wrapped around a mandrel repeatedly forming two opposing series of interconnections. The two wires are then permanently adhered at a second interconnection junction after a desired stent length is obtained. The completed stent forms a cylindrical form which can be expanded from an initial diameter to a larger implanted diameter by application of a radially outward force from a balloon catheter or the like.

**18 Claims, 4 Drawing Sheets**